



## Olive Tree Care

By Sandra Winokur

Whether you're planting one tree or thousands, the care of your olive trees begins with the planting. Below are the steps we follow and recommend to you.

### SITE PREPARATION

#### Let her rip?

Some people recommend plowing or deep ripping the soil to prepare the site for planting. Deep ripping of the soil is not required unless you are planting on solid rock and then you will need to break up the rock for planting. When you plow the soil you expose seeds that have lain dormant for many years and so you increase the number of weeds you will have in the future. At Sandy Oaks, we mow the land with the blades very close to the ground and then plow very lightly. We disturb the soil as little as possible.

#### Setting up the irrigation system and the layout of the orchard

The next step is to set up the irrigation for the orchard. The spacing of the emitters goes hand in hand with how you plan to space the trees in the orchard. So, you will really want to mark off the spacing of the trees in your orchard at this point. If you are using drip irrigation, you can either bury the lines (there are irrigation lines that have the emitters within the pipe, spaced for the distance between trees) or you can put them above ground. Spray emitters or frame jets must be placed above ground. It is best to set up the irrigation system before planting the trees.

#### You are now ready to dig your first hole.

Dig a hole the size of the container in which the tree is planted - no deeper and no wider. Ideally, the best time to plant a tree is after a gentle rain. Since that can't always be arranged, if you're planting in an irrigated orchard, turn on the irrigation before you plant the trees to wet the soil. If you're planting a single tree or your orchard isn't irrigated, make sure the tree is very wet in the pot, and that the soil in the hole is also wet. If you're planting multiple trees, please click here for information on planting density.

#### Setting out the tree

A tree that's planted too deeply will not thrive. The roots will reach up for air rather than spread laterally as they



should. This causes the roots to wrap around the trunk, girdling it, and eventually strangling the tree. Place the tree inside the hole, making certain that the root flare is level with the soil line. Using the soil from the hole you dug, fill in around and over the roots of the tree until you've reached the same level as the soil surrounding the hole. Tap the soil gently around the tree to eliminate any air pockets. Water the tree to see if there are any air bubbles. If there are, you need to add a bit

more soil. Again, tap down the soil around the tree gently, water again, and follow the same process until there are no more air bubbles.

#### Staking the tree

We use green plastic flexible plant tape and 1/2" PVC placed over 4' rebar that is 2' under ground in our orchard. We used bamboo stakes at one time, but they rotted and broke. Insert the rebar in the ground about 1" from the tree. Take the lead branch and tie it loosely to the stake so that the tree will still sway slightly with the wind. The swaying motion stimulates the tree's roots, causing them to grow, which makes the trunk grow as well. The tree should remain staked until it is sufficiently established to stand on its own - usually when the trunk size reaches 1/2" in diameter.

Another option, especially for super high-density planting, is to set up the orchard with fence posts spaced such that guide wire attached to the posts will remain taut. The tree is staked to the guide wire. The irrigation line can also be staked to the bottom wire. This is very like the manner in which grape vines are planted.

#### Applying mulch and fertilizer

Next, we apply the fertilizer. (Adding the fertilizer on top of the ground creates a "slow release" fertilizer.) We fertilize with manure that is composted. You can use chicken or turkey litter or cow or horse manure. Just keep in mind that all manure must be well seasoned, or it will burn the roots. Next, irrigate the tree immediately to water in the roots.

You can also fertilize with liquid fertilizer. The liquid fertilizer can be delivered through your irrigation line, or by using a sprayer hauled behind your tractor or truck,

with a gun that allows you to spray the tree and the root. A good liquid fertilizer mixture is a combination of seaweed, fish emulsion, and molasses or manure tea. Apply the mixture early in the morning or late in the afternoon to prevent leaf burn. Just make certain that when you do apply the liquid mixture, the temperature is below 85° and more than 45°F.

Some people like to use mulch around their tree. We don't mulch in our orchard. But, if you do decide to mulch, all of the elements of the mulch should be broken down into small chunks. Nitrogen breaks down the large chunks in the mulch and it will rob the tree of nitrogen while the chunks are breaking down.

## AFTERCARE FOR YOUR TREES

### Watering

Newly planted olive trees require more frequent watering than older trees to help them establish their roots. Regardless of the tree's age, soil moisture sensors are the best method for determining that you're watering your trees sufficiently, and that the water is reaching the correct depth. For newly planted trees you'll need a soil moisture sensor with a probe that reaches 1' below the soil line. As the tree matures, you'll need sensors that reach down 2', 3', and finally 4' below the soil line, to assure that sufficient water is reaching the deepest roots.

### Fertilizing

The manure based compost we put around our trees acts as a slow release fertilizer and should be replaced at least once a year. The foliar and root feed mixture of seaweed, fish emulsion, and molasses added to water or the manure tea work best when applied every two to three weeks. Olive trees tend to be heavy boron users. We feel that using the seaweed combination is preferable since it allows a steady, small dosage of boron without the risk of forming a toxic boron level. In addition, seaweed gives the plant the ability to deal with both cold stress and heat stress, and in the winter it gives the trees a 5° edge against the cold.

### Pruning

During the first two years after planting, your olive trees should not be pruned except for suckers or water sprouts. Branches growing near the root line of the trunk are suckers. Branches that grow on a limb and are green

and shoot straight up are water sprouts. Suckers or water sprouts can take over the tree, becoming stronger than the growth that is already established. Once the trees have two years growth in the ground, you can prune some of the lower limbs, but we recommend that you don't prune above 4' up the trunk. The canopy of the olive tree protects the shallow roots of the tree during winter and summer. If the canopy begins too high up the trunk, it won't afford the tree the protection it needs. Additionally, the more leaves a young tree has, the more roots it will develop, which will result in a bigger trunk size. You will, however, always want to cut away one of any two limbs rubbing against each other. Choose the more viable of the two limbs and remove the other. Furthermore, anytime there's dead wood on a tree this needs to be pruned back until you see green wood.

Although you can prune olives trees at almost any time of the year, fall is not the best time to prune your trees, since pruning does encourage growth. If you prune in the fall, any new growth that results might not be hardened (hardy?) enough to endure a freeze. Also, always remember to use good sanitary practices when pruning. After you've trimmed a tree, dip the pruning shears in either alcohol or hydrogen peroxide. Otherwise, if the tree is diseased, you can spread the disease to the next tree by using contaminated pruning shears.

You can also grow the olive tree as a bush. Keep in mind that olive trees started out thousands of years ago as bushes, and they're happy and produce well with a bushy growth. A good source for more specific information on this topic is, *Pruning and Training Systems for Modern Olive Growing* by Riccardo Gucci and Claudio Cantini, CSIRO Publishing.

### Protecting your orchard from uninvited dinner guests

Although trees are listed as deer resistant, if the deer are hungry enough, they will eat young and tender saplings. We found this out the hard way! Additionally, when the trees are older, deer might use them for rutting, which will girdle the trunk and can destroy a tree. Therefore, if you are planting in an area with a heavy deer population, we suggest you use game fencing to protect your orchard.